REMARKS/ARGUMENTS

Claims 1-26 and 70-101 were pending in this application and examined.

New claim 102 has been added. No new subject matter has been introduced by the amendments. Claim 1-26 and 70-101 remain pending in this application after entry of this amendment.

THE CLAIMS

Claims 1-26 and 70-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (USP-6,578,066, hereinafter "Logan") in view of Chauhan (USP-6,115,752).

Applicant would like to point out that although Chauhan is identified as a reference on page 3 of the Office Action dated 11/03/05, the rest of the Office Action fails to identify how Chauhan is applicable to any of the pending claims. The Office Action only identifies sections of Logan in rejecting the claims.

Claims 1-13

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan. Applicant traverses the argument.

Claim 1 recites (in part):

> 1. A method of providing load balancing among host servers in a computer network using a load balancing switch and a plurality of site switches, the method comprising:
>
> collecting at said load balancing switch a first set of performance metrics regarding said computer network, each said host server being accessed through at least one said site switch;
>
> (Applicant's claim 1, emphasis added)

Accordingly, claim 1 recites network entities functioning as "a load balancing switch", "a plurality of site switches", and "host servers". The first set of performance metrics about the computer network are collected at the load balancing server, each host server being accessed through at least one site switch. This is also depicted in Fig. 1 of the application where a load balancing switch 12 accesses host servers 26A, 26B, 26I, and 26E via site switches 18A

and 18B, and accesses host servers 26K, 26M, 26N, and 26L via site switches 22A and 22B. Applicant submits that this is not taught or suggested by Logan.

Applicant submits that Logan fails to teach a load balancing switch that accesses a host server via a site switch. Logan teaches techniques for balancing the loading amongst distributed network servers. As depicted in Fig. 1 of Logan and described in col. 4 lines 30-35, Logan teaches distributed-server network switches 106, 108, and 110 that are organized as distributed sites, where each acts as an Authoritative Name Server for a sub-domain, e.g., "www.alteon.com". Each such distributed site is capable of responding to a domain name server query with the IP-address identities that correspond to "www.alteon.com". Fig. 2 seems to show that the each switch at a site may be coupled to servers at the site.

Accordingly, it appears from Logan's description and Fig. 1 of Logan that each distributed-server network switch 106, 108, or 110 described in Logan is more like a "site switch" recited in claim 1, since each distributed-server network switch 106 is connected to servers local to a site (as depicted in Fig. 1 of Logan). Even the Examiner while discussing figure 2 of Logan in the Response section of the Office Action refers to a distributed-server network switch in Logan as a site switch. Logan however fails to teach any other switch that is like a "load-balancing switch" that is coupled to a site switch and accesses a host server through the site switch, as recited in claim 1.

Applicant thus submits that Logan fails to teach or suggest a "load-balancing switch" as recited in claim 1. Further, Applicant submits that this feature is also not taught or suggested by Chauhan. Applicant thus submits that claim 1 is patentable over Logan and Chauhan.

Applicant submits that claims 2-13 that depend from claim1 are also patentable for at least a similar rationale as for the allowability of independent claim 1. The dependent claims are also patentable for additional reasons.

For example, claims7 and 8 recite round trip time data for exchanging a message between a site switch and a client machine. Applicant submits that neither Logan nor Chauhan teach such a concept (see arguments provided below for claim 70). This is an additional reason for the allowability of claims 7 and 8. With regards to claims 7 and 8, Applicant had provided

additional arguments for the patentability of claims 7 and 8 in the previous response filed for this application on 08/11/05. The Office Action dated 11/03/05 fails to respond to these arguments -- in fact, the Office Action also fails to provide any reasons for rejecting these claims in the present Office Action (Pg. 6 of the Office Action skips over claims 7 and 8).

Claim 11 recites selecting a network address of a least recently selected host server. Applicant submits that neither Logan nor Chauhan teach such a concept. Accordingly, claim 11 is patentable for this additional reason (see also arguments provided below for claim 86). With regards to claim 11, the Office Action merely reiterates the same grounds for rejection cited in previous Office Actions received for this application but does not respond to Applicant's previously submitted arguments for the patentability of these claims. Applicant respectfully requests the Examiner to consider and respond to these arguments.

Claims 14-26

Applicant submits that independent claim 1 is allowable over Logan and Chauhan for at least a similar rationale as discussed above for claim 1. Claims 15-26 that depend from claim14 are also patentable for at least a similar rationale as for the allowability of independent claim 14.

The dependent claims are also patentable for additional reasons. For example, claims 20 and 21 recite a round trip time for exchanging a message between a site switch and a client machine. Applicant submits that neither Logan nor Chauhan teach such a concept (see arguments provided below for claim 70). Accordingly, claims 20 and 21 are patentable for this additional reason.

Claim 24 recites selecting a network address of a least recently selected host server. Applicant submits that neither Logan nor Chauhan teach such a concept. Accordingly, claim 24 is patentable for this additional reason (see arguments provided below for claim 86).

Claims 70-85, 91-95, and 100-101

Independent claims 70, 91, and 100 are rejected under 35 U.S.C. 103 as being unpatentable over Logan. Applicant traverses the rejections.

Claim 70 recites (in part):

> storing, in a load balancing switch of the data network, round trip time data, wherein the round trip time data is a time for exchanging at least one message between a first host server site switch of the data network and a first client machine of the data network; (Applicant's claim 70, emphasis added).

Applicant submits that neither Logan nor Chauhan teach or suggest round trip time involving a client machine, as recited in claim 70.

The Office Action asserts that Fig. 2 and col. 6 lines 30-41 of Logan teach the round trip time feature recited in claim 70. Further, in disagreeing with Applicant's arguments that Logan does not include round trip time involving a client machine, the Examiner states:

> Examiner respectfully disagrees because Logan teaches the client is directed to a particular server based on several factors including showing good response time or the servers that are healthiest and the server closely located to the client (see col. 5 lines 3-18)

Applicant submits that Logan only teaches round trip response times between server sites and not between a server site and a client machine (see Logan: Tables I-IV and related description). Col. 6 lines 30-41 of Logan describes how response times between a site (distributed server switch 202) and its remote servers are used to determine a priority between preferred hand-off sites. Logan states that "[t]he response times of each remote server 210, 204, 206, 208 are recorded at main site 200 from a distributed server switch 202 as a time-weighted average." (Logan: col. 6 lines 34-36) Table I also indicates response times between server sites. Based upon this, Applicant submits that the round trip time in Logan is determined between server sites – not between a client machine and a host server site switch as recited in claim 70.

Col. 5 lines 3-18 of Logan indicates that in addition to good response times, servers that are more closely located to clients should have more traffic directed to them. However, in Logan, the location of a server with respect to a source of a domain name server request is determined by examining the source IP-address of the request and information from IANA as described in col. 10 of Logan -- not based upon the response time from the client to the

server. Thus, Logan does not teach a round trip time between a host server site and a client machine, as recited in claim 70.

Furthermore, Applicant submits that the fact that Logan has to perform location analysis using IP source address and IANA information confirms that Logan does teach round trip time between a client and the host server site switch. Since, if Logan had been able to determine a round trip time between the client and the host server site switch, then that would have provided a better measure for determining which server to handle the DNS request rather than the source IP-address analysis described in Logan.

In light of the above, Applicant submits that claim 70 is not taught or suggested by Logan.

Applicant further submits that the deficiencies of Logan are not cured by Chauhan. In Chauhan, a request for a particular address is sent from a user (Chauhan: Fig. 4, reference 400) to a local name service (LNS) (Chauhan: Fig. 4, reference 402). The LNS then sends the request to an Optimizer Name Service (ONS) (Chauhan: Fig. 4, reference 404). In order to determine a best route from the ONS to the LNS, the ONS requests from all mirrored servers (406a-406b) the round trip to the LNS. Each mirrored server then sends a name query to the LNS and the LNS replies with an error message. Each mirrored server then determines a round trip time from the time the name query was sent to the time the error message was received. (Chauhan: col. 6 line 45 – col. 7 line 42). As is evident, this round trip time determination does not involve the user or client at all. Accordingly, Chauhan does not teach a round trip time between a host server site switch and a client machine, as recited in claim 70.

Accordingly, Applicant submits that claim 70 is patentable over Logan and Chauhan considered individually or in combination (also, there appears to be no motivation for the combination).

Further, Applicant submits that claims 71-85 that depend from claim 70 are also patentable for at least a similar rationale as discussed above for claim 70. The dependent claims are also patentable for additional reasons.

Applicant submits that independent claims 91 and 100 are also allowable over Logan and Chauhan for at least a similar rationale as discussed above for claim 70. Claims 9295

and 101 that depend from claims 91 and 100 respectively, are also patentable for at least a similar rationale as discussed above for the allowability of the independent claims from which they depend. The dependent claims are also patentable for additional reasons.

Claims 86-90 and 96-99

Claim 86 is rejected under 35 U.S.C. 103 as being unpatentable in light of Logan. Applicant submits that claim 86 is not taught or suggested by Logan. For example, claim 86 recites:

> selecting, from a plurality of network addresses responsive to the request, a best network address based, at least in part, on which of the plurality of network addresses has been least recently selected by the load balancing switch as a best network address in response to previous queries. (Applicant's claim 86, emphasis added)

As recited above in claim 86, a best network address is selected based, at least in part, on which network address from the plurality of network addresses has been least recently selected as the best network address in response to previous queries. Applicant submits that the above-recited step of claim 86 is not taught or suggested by Logan.

The Examiner seems to have somehow equated the "selecting" step of claim 86 as implying selecting a server with best response time. Applicant submits that this is incorrect. Claim 86 does not mention anything about response time—instead, in claim 86 the best network address is selected based in part upon which network address has been least recently selected as the best network address in response to previous queries.

The Office Action (on pg. 14) points to col. 5 lines 46-59 and tables I-IV as teaching the "selecting" feature recited in claim 86. Applicant however submits that neither this section of Logan nor the tables teach the "selecting" feature of claim 86. Col. 5 lines 46-59 of Logan teaches how a domain name server responds to DNS requests for VIP sites. The section states:

> When the switch receives a domain name server Name Request to resolve "www.alteon.com", associated with a VIP, it will respond with an appropriate domain name server response that matches the "best site" to respond to the subsequent content requests. Such best site, for example, represents the one that imposes minimum delays on the greatesat [*sic*] numbers of users. Other

criteria are possible, such as defining the best site to respond as the one that is the least costly.

(Logan: col. 5 lines 50-59, emphasis added)

This section teaches that in Logan the selected "best site" is one that imposes the minimum delays on the greatest number of users or one that is the least costly. However, these selection techniques described in Logan are substantially different from selecting a best network address based in part upon which network address has been least recently selected in response to previous queries, as recited in claim 86. Selecting a best site that is least costly, as described in Logan, has nothing to do with selecting a network address that has been least recently selected in response to previous queries. Further, selecting a best site that imposes minimum delays, as described in Logan, also does not teach or imply that the best site is the least recently selected address. On the contrary, as indicated in Logan, sites that do the best will generally receive more connections than other site (Logan: col. 8 lines 47-49) and sites that are seen as poorly performing will tend to receive fewer or no handoffs (Logan: col. 8 lines 52-54). This clearly indicates that the method of selecting a best site in Logan is not based upon the least recently selected address.

Applicant submits that Tables I-IV in Logan also do not teach the "selecting" feature recited in claim 86. Table I represents response times between different sites in a network from each site's point of view (Logan: col. 7 lines 24-35). Tables II, II, and IV depict a methodology for using response times of Table I to determine a best site for handling a request (Logan col. 7 line 54 – col. 8 line 45). However, using response times to select a best site does not teach or suggest anything about selecting a best network address based in part upon which network address has been least recently selected in response to previous queries., as recited in claim 86. Consequently, Applicant submits that none of the tables teach or suggest anything related to the "selecting" step recited in claim 86.

Applicant thus submits that claim 86 is patentable over Logan for at least the reasons stated above.

Further, Applicant submits that claims 87-90 that depend from claim 86 are also patentable for at least a similar rationale as discussed above for claim 86. The dependent claims are also patentable for additional reasons. For example, claims 87 and 88 recite round trip time

data where the round trip data is the time for exchanging a message between a host server site switch and a client machine. Applicant submits that neither Logan nor Chauhan teach such a round trip time concept (see arguments previously provided for claim 70). Accordingly, claims 87 and 88 are patentable for this additional reason.

Applicant submits that independent claim 96 is patentable for at least a similar rationale as discussed above for claim 86. Claims 97-99 that depend from claim 96 are also patentable for at least a similar rationale as discussed above for claim 96. The dependent claims are also patentable for additional reasons.

Applicant would also like to note that the Examiner did not respond to Applicant's previously submitted arguments for the patentability of claims 86-90 and 96-99. If the Examiner believes that the claims are still not patentable, Applicant requests the Examiner to clearly indicate the reasons for rejecting the claims in light of Applicant's arguments.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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